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Paperd. March
4th. 1828

Inaugural Essay
in
Larynx & Tracheitis.

By

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of

Virginia.

A candidate for the degree
of

Doctor of Medicine.

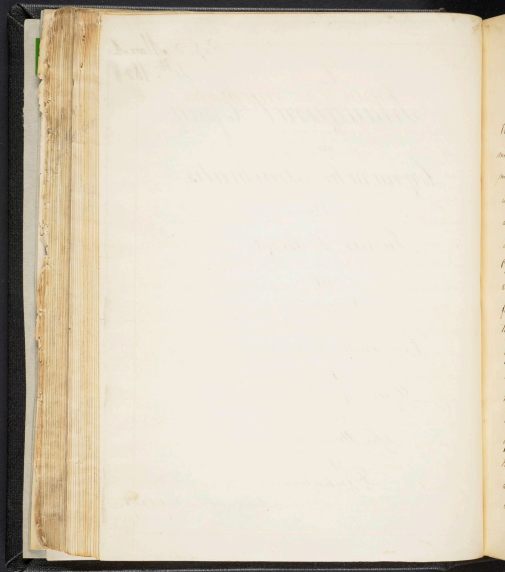
in

The University

of

Pennsylvania.

And given in the Year 1828.



of
Cynanche Trachealis.

When about to engage in the consideration of this subject, I am met with no small difficulty in deciding, as to the most suitable method of dividing it, for on the one hand, we find it distinguished into idiopathic and symptomatic; that is, when it is primarily, and to a considerable extent situated in the trachea, or when it arises itself as a consequence of some other disease, such as Tubercle, Scrophulous, Cynanche Maligna &c. for it is said to be accompanied with or an attendant on such diseases in some instances. Again, we find it divided into spasmodic, and inflammatory, and it is under the head of this last distinction, that Doctor Brown advances an opinion and says, that is perhaps, no case of Croup in which muscular action is not concerned, only in some instances, the inflammatory symptoms are more prominent than in others, and in allusion to the same, Doctor Chaferneau gives his opinion to prove, that in the majority of instances where the attack is sudden, it partakes of the nature of spasm, and that time is requisite to induce inflammation, which consist in an altered action of the parts, effected comparatively

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by a slow process. After a due consideration of such opinions
and means of decision, I shall only allow myself the privilege
of stating, that Symplicite Tracheitis as its name imports, consists
in an inflammatory affection of the mucous membrane lining the
Trachea and this facts accounts thereforly raise to such a
degree of excitement as to stimulate the vessels to throw out coagulated
lymph instead of inducing an increased and altered secretion,
according to the customary action of this membrane.

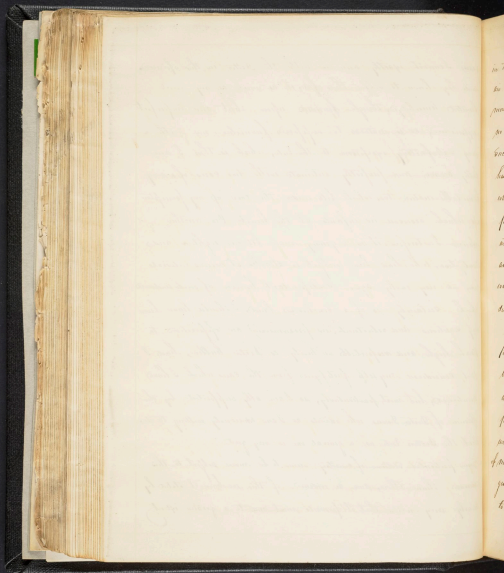
This inflammation does not always confine itself within the
Trachea and Larynx, but in numerous instances is said to extend
to the Bronchia, throughout the minute ramifications, and surface
of the lungs, generating an exudation which is described as
being somewhat membranous and partly of a fluid scumlike form,
attended by a train of peculiar symptoms which I shall endeavor
to describe in another part of my volume.

The complaint under review is principally confined to the period
of childhood, and as such I shall chiefly limit my consideration
to attacks are most frequent in infancy, or before the fifth
or sixth year, and Doctor Haller thinks it rarely if ever
attacks children till after they are weaned, and that
there is no instance of its occurrence above the age of twelve.



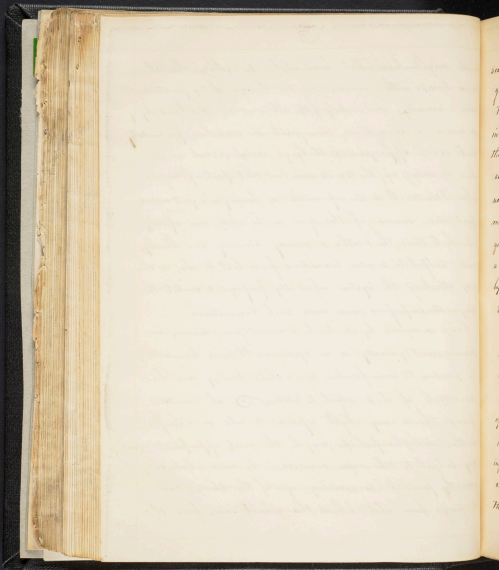
years; cannot exactly coincide with the Doctor in this opinion, and, by leave to differ thus far, in as much as my own limited knowledge, though founded upon short and imperfect experience, as is natural to suppose, furnishes me with a very satisfactory system to the Rule, which is that I am fully aware, and perfectly intimate with two cases of a very formidable nature too, which fell under the care of my preceptor and which occurred in infants at the breast. One another occasion I witnessed it in a young more vigorous sighted and twenty two, who had been subject to attacks at various intervals from a very early age. Independent however of such instances which certainly is of a concluded kind, I should have been very cautious and reluctant, in presuming to offer opinions to such high and respectable authority as Doctor Haller, had I not considered myself justified from the cases which I have mentioned, but most particularly, as I am strongly supported by the opinion of Doctor Jansen who admits as I am expressly willing to do, that the Doctor's Rule as a general one is very good.

Some particular districts of country seem to be more subject to this disease than others, and as evidence of this we have it stated by nearly every writer that it prevails most and to a greater extent



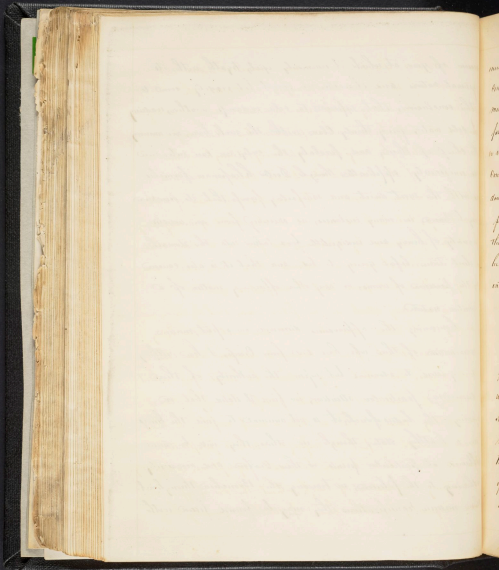
in the neighbourhoods which border on the sea shore, where the air is loaded with moisture, and the change of temperature moves sensibly and readily forth. It is on the other hand by no means a stranger in many inland situations, particularly such as are appropriated to large marshes, such as we have breeding in the small rivers in that part of Virginia where I reside. It is also represented as prevailing in a great measure particular seasons of the year, as the winter and spring at which time the weather is usually stormy and blowing, and subject to sudden transitions from heat to cold, in this way attacking the system when illly prepared to combat the disagreeable impressions made under such circumstances.

Grip is considered by all to be a contagious disease, and prevails most generally, as an epidemic. It seems however to be peculiar to some families, and a child having once had an attack of it, is subject to return. It is uncertain whether it proceeds from any slight exposure to cold or damp weather, and this perhaps may be the most appropriate part of my subject, to take under consideration the causes which are generally supposed to excite, and of this disorder; and to judge from what I have this moment said, from the



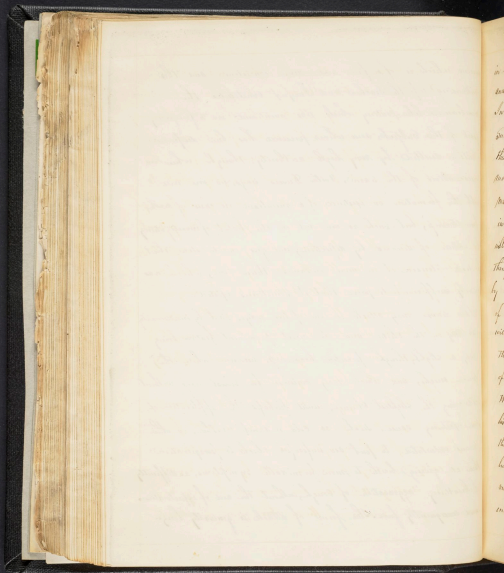
season of year at which it commonly exists, together with its
general nature and character, we cannot but readily come to
the conclusion, that, exposed to cold or damp weather, residing
in cold water, going thinly clad with the neck bare, and wearing
the chief of them, and probably the only we can introduce
as uniformly efficacious though Doctor Chapman furnishes
us with the most direct and satisfactory proofs that its occurrence
may be traced in many instances, as arising from an undigested
quantity of heavy and indigestible food taken into the stomach
a short time before going to bed, and that it is also caused
by the presence of worms, or any other offending matter of a
similar nature

Concerning the appearance of the disease, in a post mortem
examination of those who have died from it, I have nothing
of my own to advance but refer the authority of those
describing particular attention, so find it stated that on
opening the bodies of such, it is not unusual to find the lungs
in a healthy state, though in others, they will be found
inflamed at particular points or their surface and occasionally
adhering to the pleura; in tracing the Bronchial throughout
these minute ramifications they may be found filled with



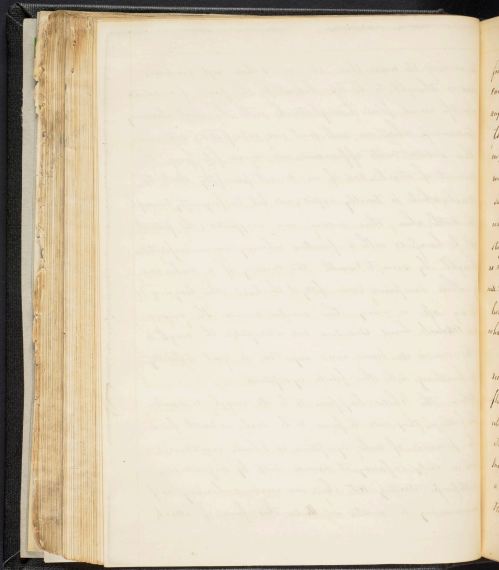
membrane which is of a firm and dense consistency and this
extending up the trachea and Larynx constitutes the
membranous like coating which was mentioned as a foreign
part of the surface, and whose presence has been disputed
is rather settled by very high authority; though when in
consideration of the case, Doctor James says, no one will
doubt the formation or existence of a membrane in case of diph-
theria, but such as are not in the habit of investigating
the nature of disease by dissection, and go on to state that
he has witnessed it in more instances than one, which was
entirely sufficient to prove that it sometimes existed.

This disease may attack in one of two ways, first by insidiously
starting in the throat and its most prominent feature being
only a slight, though frequent hoarseness, dissonance when the
person speaks, and which may continue for several days without
undergoing the slightest change, until perhaps the application of
some exciting cause, such as cold or damp weather, or other
means calculated to put an improper check to perspiration;
then are giving birth to more formidable symptoms, as difficulty
of breathing, aggravation of cough, without the aid of expectorations
and consequently fever. This form of attack is generally longer



in running its course, than the one I shall next consider,
and is thought to be less obdurate to the power of medicine.
In the second place it may attack with the most alarming
suddenness, where no such onset was anticipated, and when
thus sudden in its appearance will snatch life from the
moment of attack, and if we do not promptly arrest its
march, which is terribly rapid, will but too frequently triumph
in death, when thus sudden and unexpected, the patient
will be harassed with a peculiar shivering, profuse inspiration,
thought by some to resemble the crowing of a cock, and
by others compared (more fitly, I think,) to the baying
of an ape, or many other similar sounds. The voice
will likewise become staccato and interrupted, the cough in
this case is also hoarse and dry, there is great difficulty
of breathing with other febrile symptoms.

When the child happens to be old enough to describe
his feelings, they will be found to be such, as result from
the presence of such symptoms as I have mentioned
but in early infancy it discovers itself by inquietude,
restlessness, starting out, shivering, and occasional hoarse
endeavouring to vomit. — Hence this form of attack



from the front the pulse is frequent, and soon becomes corded and tense, the patient is restless and complains much of anxiety, complains of great thirst, the face is flushed with the eyes suffused, and often a great degree of convulsion, from which the child is aroused by sudden fits of coughing and a series of suffocation, with considerable agitation for some time to be attended with fits of exaltation, during which the heavy, sordid inspiration is exchanged for a violent struggle, in which the child makes the cowering, or baying noise as mentioned, and provided it be of sufficient age and strength will rise up, and cling instantaneously to the nearest object about it, looking with a fixed, anxious and furious eye, thereby expressing what its voice cannot utter.

When the disease is mild under the face during the remission will be somewhat pale; when otherwise it is much flushed, and before death assumes a blue or purple colour, while the lips become livid.

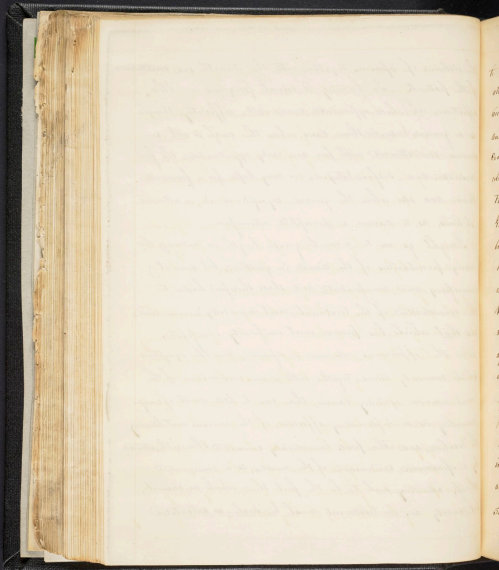
There is considerable variety in the duration of croup, in some instances, it proves fatal in a few hours, in others not for a week, but most commonly in a day or two. Related to this, much of course will depend on the degree of inflammation

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The violence of Spasms, together with the strength and constitution of the patient. In forming a correct prognosis in this affection, we shall experience considerable difficulty, though as a general rule, in those cases where the cough is not so numerous and attended with few and early expectoration, the fever moderate, and subsides delayed, we may hope for a favourable crisis; and also when the general symptoms are so alleviated at times, as to discover a perceptible intermission.

I might go on to a much greater length in noticing the many peculiarities of the disease in question, but deem it unnecessary and superfluous, and shall therefore hasten to the consideration of the treatment most universally recommended, and that which has proved most uniformly successful. From the appearance, duration in duration, and the symptoms which commonly attend, together with a due consideration of the most common exciting causes, there can be little doubt of cough existing in an inflammatory affection of the mucous coat lining the trachea, and other parts immediately connected therewith, attended by a spasmodic contraction of the muscles, as a consequence thereof, admitting such to be the fact there, which we cannot but readily do, our treatment must be such, as calculated



to such like indications, and in the inefficiency of an
attack our ^{undivided} ~~stomach~~ must be directed to the adoption of
such measures, as best calculated to diminish the inflammation,
and increased action which pervades throughout the mucous
coat of the Trachea, extending often to the adjacent parts,
which may be affected in the same manner, and to
the same extent: and to answer our intentions in this
respect, the employment of both general and topical
bloodletting, aided by the use of Emetics, Purgatives,
Blisters, Rubefacients, the warm bath &c. will be
implicitly, and imperatively demanded.

Which of the two ways, (I have already mentioned) the
disease may make itself known, the latter part of evening
after a short but disturbed sleep, and about two or three
revels in the morning, will be found as the usual time
of its declaration. From this we are induced to expect
night as the usual time of its attacks, and the moment
the croupy sound be heard, we should lose no time
in the repair, and application of such means as advised
at this particular juncture, and fortunately they are
such, as may be obtained in any season, or in any family

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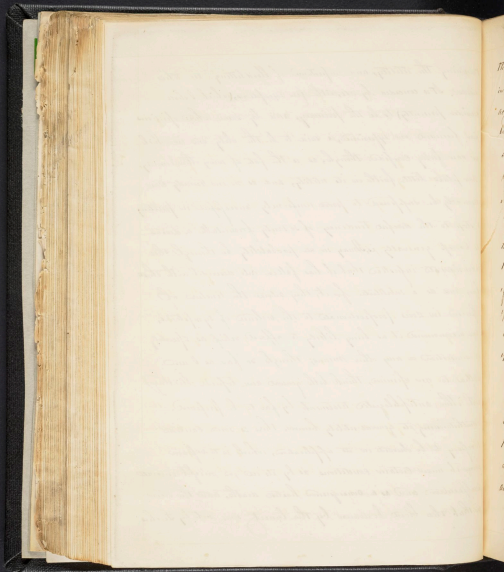
the utmost efforts shall be used with the spirits of Turpentine,
Nitre, or any thing else of a similar nature that may be
most convenient. It might ^{also} be of considerable advantage to envelop
the neck in flannel, or caliculation to ward off many sources
of aggravation to the disease. These applications must be repeated
if the first does not procure relief, or even as the effects of the
first shall have subsided, for it is important that the relieving
effect be not carried to the extent of blustering, when not required.

To aid these means in accomplishing the end desired, it will
be often necessary to administer the Nix Symples, or the Symples
in some other of its forms, in dose proportionate to the age of the
Child, and Circumstances of the Case, and as calculated to induce
expectoration, or repeat vomiting, as shall be thought necessary.

It may be useful to observe that the remedies as mentioned,
will but too often prove unavailing, though judiciously conducted,
and rightly pursued in; in consequence perhaps of the improper
time for their application being lost, or that we have not seen
the Case until too advanced, and the urgency of symptoms, calling
for more direct and powerful treatment, requires be at this
juncture that we are compelled to resort to the use of blood
letting, and other means as shall be directed.

Concerning the utility, and importance of bloodletting in this disease, it is attended by almost five systems, (which I shall consider presently) to be the primary, and by some whose opinions are founded on experience, is said to be the only one in which we can fully confide. though, as is the case of every other remedy, some place little faith in its utility, and as no one remedy can reasonably be supposed to prove uniformly successful in putting a stop to the disordered tendency of so truly formidable a disease as Consumption generally is, though in one probability be through this inconsiderate injustice that it has fallen into discredit with those few, and as a substitute for it, they advise the tincture of opium in doses proportioned to the violence of symptoms, and recommend it as being likely to afford relief as speedily as any other means; though so far as I am entitled to an opinion, think both general and topical bleeding with other antiphlogistic treatment by far to be preferred.

Notwithstanding its general utility however, there is some caution necessary to be observed in its application, which is to be ascribed from its more certain conditions as by its use we might increase inflammation and as a consequence hasten death, and the second is that the blood be drawn by the lancet and not by Leeches

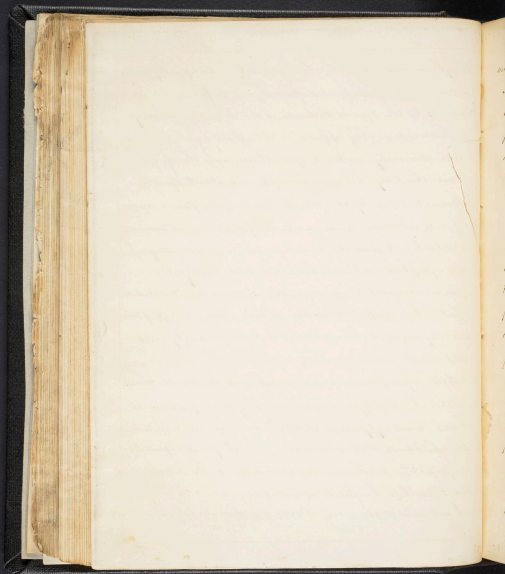


though in cases where the lancet cannot be conveniently used,
in consequence of the peculiar propensity of the faculty, or on
account of the age or flaccidity of the patient, leeches may
be of advantage when applied to the affected regions.

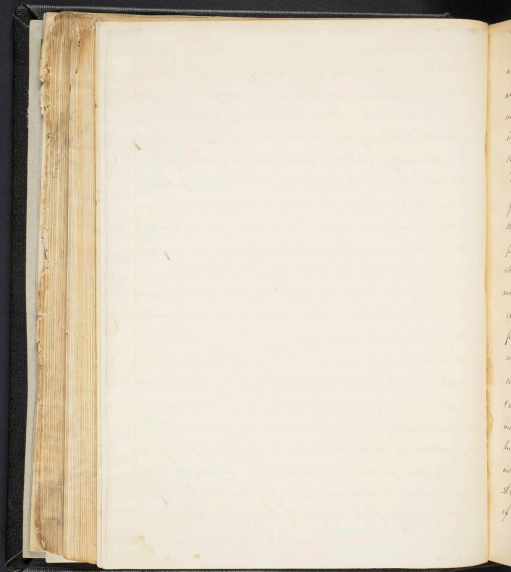
It is strenuously advised to draw blood from the jugular
vein, this being rather inconvenient, and almost always
refused to either by the patient himself, his parents or other
friends, we shall find venous compulsion on most occasions,
to detach it from the arms and should a mitigation of
the symptoms not result from the first bleeding, it will be
essential to resort to it again and again, until the desired
effect shall be produced: and in cases where the symptoms
are very urgent, to bleed and that to an exceedingly great
extent will be found essentially requisite.

After copious and repeated emissions, a blister to the throat
is thought highly beneficial, and is of infinite praise in the
hands ^{of many} skillfully applied, and this under a general consideration,
though, I have more seen a case where they could ^{not} be
dispensed ^{with} and other means better suited to the tender infant,
and little less beneficial substituted.

Cauters must claim our attention, and should generally be recommended,



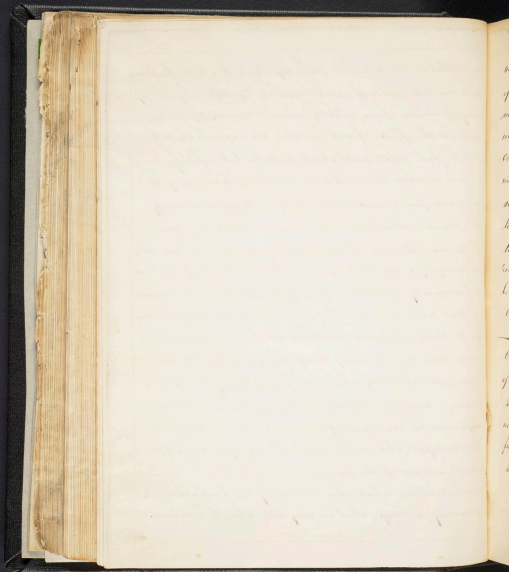
and which have proved most uniformly successful, are
Spiraea, Tincture limited, and occasionally the Sulphate of Copper,
relative to this last I have nothing to say, and the two
former will chiefly engage our attention, which are highly
and directly assisted by the majority, while the
remainder hold little considered in their practice, so far
however as my limited knowledge and researches, relative
to their beneficial effects justify an opinion, I am
inclined to consider them indispensably useful in every case
where the features of the disease are so prominent
even in advanced stages, they appear to move by a mechanical
force, the Sympathetic membrane which is said to be generated
in Croup, many of the expectorants have been used as a substitute
for Emetics, but by no means with a view of inducing
hemiplegia, these however do more or less good in some instances,
and when it may be thought necessary to resort to them,
these commonly prepared are suitable, and some of the
preparations of Sella maritima, to assist the expectorating
process, and produce a relaxation of the Surface, which is
important to be attended to; diaphoretics will be very
useful, such as a few drops of the Vinum Spiritu.



is a relation of tactless autonomy, the last is to be pursued, and the last mode of administration is, in suitable quantity, very end other hours, until it inclines to nausea, To aid and increase the effects of such medicine, the warm bath is of the highest value and should never be lost sight of.

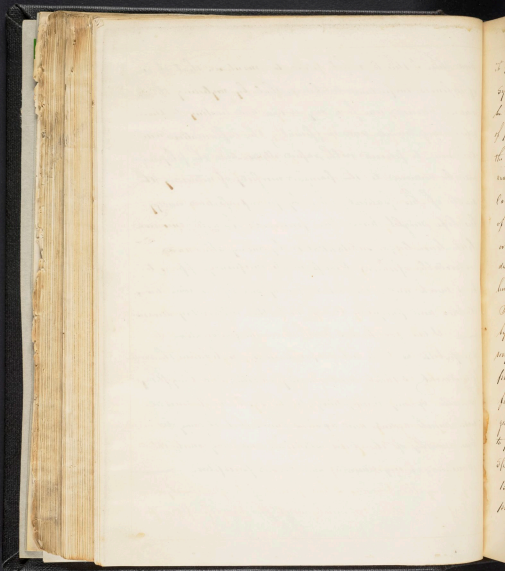
When we shall have arrived at the source pointed out, to a full and perfect extent, without having the hoppings to arrest the progress, in which ^{operation} we must resort to purgatives, and more particularly if the bowels be active, which is often the case, and of all belonging to this class, I should rather to recommend Calomel as most uniformly beneficial, and if appliedly used, will be productive of good when all others fail. I can recommend Calomel in very few cases, as I have a case wherein the hiccups, sickness, and the warm bath, have been fully and promptly exercised the one turning, in defiance of which, on the day following the child continued distressed, with the hiccups renewed and laborious inspirations, till the effects of a moderate dose of Calomel had been developed, when all the discharges by motions disappeared, without a return of the disease.

Dr. Hamilton asserts, when considering the beneficial effects of Mercury in drops, that in every case where he administered



and this, I think a fit place to mention, that it is
of infinite importance to observe, that by neglecting the
means advised, now for a day or two, and trusting to those
which are tried and inefficient. The inflammation will
continue to spread with rapid strides, and the physician
will be reduced to the painful necessity of witnessing the
death of his patient, when by prompt and energy
his life might have been preserved. For with our own
little knowledge, substantiated by many able and
respectable opinions, Oropus in its incipience, appears to
be as much under the control of early and copious sweating,
vomiting and purgation &c. as most other inflammatory diseases.

— Thus far have I ventured on the consideration of
Oropus, both as to its nature & particulars, as likewise the means
of treatment. I think most generally suitable, and being fully
sensible of my incompetency to the task, must conclude
with much modest and anxious desire, that it may be
found worthy of the kind attention, and may meet the
sanction of my esteemed and valued preceptors. —



it forms to the occurrence of tenderness of life, and other
symptoms which are indicative of approaching dissolution, that
he must invariably succeed in raising the disease, and the mode
of proceeding adopted and practised by him, was first to place
the patient in a warm bath, say from 80 to 100 Fahrenheit
and after the usual periods, give from one to five grains of
Calomel as shall be found suitable to the age, strength &c
of the child, may have notice an opportunity be accomplished,
or the breathing be relieved, where it must be gradually
discontinued, allowing at first two, three, three, four and five
hours to intervene each dose.

The mode of treating Croup as pointed out, ^{is} recommended
by Doctor Hammett, is in itself an excellent one, and deserves
my strict attention, but from the leading symptoms, and
prominent features, in most of the cases I had been
saturated with an opportunity of seeing, it appeared
generally necessary, and in some instances, of actual demand
to promote blood letting followed by an emetic in order to relieve
thirst, and increase and facilitate expectoration.

By using the remedies I have pointed out, judiciously and
promptly, we shall commonly meet the progress of Croup.

